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The Platoon School

A STUDY OF THE ADAPTATION OF THE ELEMENTARY SCHOOL ORGANIZATION TO THE CURRICULUM

By

CHARLES L. SPAIN, PH.D.

Deputy Superintendent of Schools, Detroit, Michigan

THE AUTHOR undertakes to submit a new type of school organization, the platoon school, to this test: Does it square with the past? Does it serve the present? Does it hold abundant hope for the future? The discussion is concerned with the genesis of the twentieth century curriculum and with an analysis of those social forces which have produced it. It is also concerned with the nature of the twentieth century school organization as it has evolved from the more simple forms which have preceded it. Finally, it is concerned with the twentieth century school building as the lineal descendant of the simple and primitive structures of an earlier day. In a word, it aims to discover how the platoon school squares with the past.

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SCHOOL AND SOCIETY

Volume XX SATURDAY, DECEMBER 27, 1924 Number 522

THE PHILOSOPHY OF GENERAL SCIENCE[1]

SOMETIME ago I had lunch with a leading actor of a popular play. He came late and looked hurried.

"I beg your pardon for my tardiness," he said, "but we had an extra rehearsal this morning."

"How was that?" I asked. "Your play has been running over a year and you must all be familiar with it by this time."

"That's the trouble," he replied. "We are so familiar with it that we are apt to get careless and hurry or retard some speech or business. The stage manager keeps time on every scene and if it is half a minute off either way, the actors in it get a reprimand. If the play as a whole deviates from the schedule by three minutes, the company is called for a complete rehearsal next morning."

Now this was not one of these helter-skelter, flitter-flurry, modern plays that strive to outspeed the movies. It was a dreamy, leisurely, Oriental play, in which the gestures were deliberate and the conversation interrupted by long pulls at the hookah. Yet every movement was calculated and every second counted, even when the actors were motionless and the stage darkened. The actors had only 140 minutes in which to awaken the interest of a more or less indifferent and distracted audience and to produce an indelible impression on their minds, and every minute must be made to count.

This, I think, has a lesson for teachers. You have fifty minutes in which to awaken the interest of a more or less indifferent and distracted audience and to produce an indelible impression on their minds, and you too should make every minute count. This does not mean that you have to hurry. The play, as I said, was a leisurely one. There is reason to think that we are putting our students through at too rapid a pace now. Professor Dearborn says that it is wrong "to be too fast, forever putting facts into the mind while never providing time to use them in thought." But we ought to be at least as careful in economizing the time of our students as the theatrical manager is in economizing the time of his auditors. That means careful planning as to just what point can be hurried over and what should be allowed more time; where cuts can be made and where "stage business" should be elaborated.

You realize the importance of this, and I am not going to take up any of your valuable time in giving advice at random from my inexperience about what should be included in the general science course and how it should be taught. But I do welcome the opportunity to call attention to a side of the work that seems to be neglected in the absorbing discussion of ways and means, and that is the fundamental principle of general science, why it has a right to assert its claims as a complement to the special sciences, and why it should be welcomed by them as an ally rather than being regarded with suspicion as a rival.

General science bears the same relation to the several sciences as the League of Nations bears to the nationalist movement and it is meeting with the same sort of opposition. It is an effort at the unification of knowledge, and it is attacked equally by those who think it is impossible but desirable, and by those who think it is possible but undesirable.

[1] An address given at the convocation of the University of the State of New York on October 16, 1924.

General science is hampered by its name. General science sounds like "superficial science," and superficial science sounds like "inaccurate science" and inaccurate science sounds like nonsense. If the study had been launched under some such name as "synthetic science," it would have been less misunderstood by outsiders, and it would have impressed upon its practitioners the idea that it differs from the several sciences not only in grade, method, content and arrangement, but also, and more significantly, in point of view. General science is not a crazy-quilt, made up of patches torn from the various sciences. On the contrary, the various sciences consist of patches torn from the seamless robe of truth, which it is the object of general science to present in its pristine unity, its natural integrity.

Historically, general science is the mother of the sciences who now disown her. The point of view of general science is that of the natural philosophy of the eighteenth century, the age of Franklin, Rumford, Humboldt, Leibnitz, Kant, Goethe, Linnaeus, Berkeley, Buffon, Diderot and the French Encyclopedists. None of these could pass a college entrance examination in any particular science. They were what would now be called "smatterers," yet they can not be said to have superficial minds. It may seem presumptuous to claim such distinguished ancestry for a humble high school study, yet general science bears two evidences of such heredity, its humanitarian aspect and its cosmic conception. Eighteenth century science was distinguished from the periods that preceded and followed it by its effort at an all-embracing point of view and its belief that science should contribute to human welfare. I think I see signs of a revival of this spirit. The twentieth may turn out to be the synthetic century, as the nineteenth was the analytic century. If so, general science may take a leading part in the movement if it follows its own philosophy and develops its own methods instead of being content to pick up such scraps of useful information as it can lay hands on and stick them together anyhow.

The difference between general science and the several sciences is essentially the same as that between the family and the club. The family is a natural group formed of diverse individuals. The club is an artificial organization of like-minded individuals selected for congeniality. That is why it requires more broadmindedness and adaptability to live in a family or village than in a club or city. As Chesterton puts it with his customary pungency:

> The man who lives in a small community lives in a much larger world. He knows much more of the fierce varieties and uncompromising divergencies of men. The reason is obvious. In a large community, we can choose our companions. In a small community our companions are chosen for us. . . . There is nothing really narrow about the clan; the thing that is really narrow is the clique.

So the man who finds the natural complexities of the clan and incompatibilities of the family too much for his peace of mind flees to the club in search of a simpler and quieter life. So too the scientist who confines himself to some selected group of natural phenomena, say the modulus of elasticity of non-ferrous metals or the second law of thermodynamics or the constitution of organo-metallic compounds of the paraffin series, can safely ignore the rest of the world. If asked a question about anything outside his prescribed field, he can modestly admit his ignorance—no, rather, proudly assert his ignorance, for he gains, instead of losing, prestige by that admission. People naturally, though not always justifiably, assume that a man who knows nothing about so many things must know a great deal about something.

But you teachers of general science, who have your topics presented to you in the raw, can not so pick and choose, and so you

do not have so easy a time of it. If, for instance, the subject of your lesson is an automobile, you can not dodge questions because they refer to matters out of your jurisdiction and over the boundary of another science. You may have to deal with the modulus of elasticity of non-ferrous metals, the second law of thermodynamics and the constitution of tetra-ethyl lead all in the same hour, and what is still more difficult, you will have to show their relationship to one another and how they all contribute to the working of the machine.

You are not dealing with prepared specimens, preserved in formaldehyde like fish in museum bottles. Your subjects are cast upon your desk alive and kicking, freshly caught by your students from the flowing stream of current events. The teacher of general science can not draw upon a barrel of old lectures. His topic for the day may be the zeppelin flying by the window or the mosquito flying in the window. The text for the morning lesson may be given to him in the form of a clipping from the morning paper. He is put through a daily intelligence test by his pupils, and this requires a broadness of interests, an alertness of mind and a proficiency in fundamental principles that is not found in all scientists. That is why good teachers of general science are so hard to find.

The specialist knows his own ground and so has the advantage so long as he can keep to it. Maarten Maartens, the Dutch novelist, tells of a Leyden student who, in the study of zoology, devoted himself to the elephant exclusively. When he came up for examination, he found three questions on the paper which he answered in this fashion:

How many legs has the centipede? The elephant has four legs.

How many tusks has the rhinoceros? The elephant has two tusks.

How many wings has the dragonfly? The elephant has no wings.

His paper was the only one free from errors, so he was awarded *magna cum laude*.

But outside the artificial atmosphere of the classroom, the specialist can not keep to his specialty. As soon as he comes into contact with actuality, with real things and real problems, he will find that the sciences are all mixed up in every single thing—that he can not comprehend the flower in the crannied wall, all in all, by botany alone, but has to consider it in the light of chemistry, physics, geology, entomology, meteorology and anthropology, and he may find himself in the realms of metaphysics and theology if he goes far enough. Even the elephantine specialist could not understand his particular pachyderm without entering into comparative zoology, which might well have involved consideration of the centipede, the rhinoceros and the dragonfly. All nature is one and we should never forget that in contemplating her several aspects.

I must confess that I am preaching the opposite doctrine from what I advocated when I first talked to teachers thirty-five years ago. At that time I urged the desirability of intensive study, of the perfect mastery of the narrow field. I do not take back a whit of what I used to say, but I feel that now another gospel is needed. The specialist has won his spurs. The value of research is recognized by all, by business men and politicians as well as educators, both for its contributions to knowledge and as a means of mental training. The Ph.D. degree is quoted at par, or above, in every list of academic stock. A graduate course is recommended as a sound investment.

Specialization has not been carried too far. The only fault to be found with the specialists is their disposition to insist upon making their efficient method of research the exclusive method of education in all grades. The present partition of the sciences is the accidental result of their historical development, like the prevailing boundaries of nations. We are then not violating any law of nature when we adopt

for pedagogical purposes another system for the classification of natural phenomena, when we substitute a psychological for a chronological way of approach.

But there is more to the theory of general science than the introduction of a subdivision by subjects rather than by sciences. There is, or there should be, the synthetic point of view in contradistinction from the analytic. This is more needed than ever with the growth of specialization. The more specialists there are in medicine the greater the need for the general practitioner.

The high school teacher has the strategic position in the entire range of education, since he has the most impressionable period from an intellectual point of view. The high school has a double function. It is a finishing school for the many and a preparatory school for the few.

But I do not think that this double duty is so much of a disadvantage as it seems, for the student of science, however far he may go, starts from the same standpoint and so needs the same beginning, that is, a preliminary survey of the field before him.

Two things, I think, should characterize the first course in science; it should be concrete and it should be comprehensive. It should start from where the pupil stands and it should cover a good deal of ground.

Your main object is to inculcate the scientific habit of mind which consists in constantly looking for the reasons and relations of the things you see about you. A baby in his first outlook on the world doubtless sees it in two dimensions only, a particolored patchwork of shifting shapes on a plane surface. Later he finds that he can interpret this panorama by assuming that every object has, besides the two dimensions that he can see, a third and invisible dimension sticking out behind to hold it up, like the prop on a bit of stage scenery. Later in life he discovers, or is taught, that there is more to the world than shapes and solids; that there is a principle behind it all, which he needs to know if he is to understand and control the phenomena of nature. This principle is, like the third dimension, invisible to sight and discernible by the mind's eye only. I would call it the fourth dimension of the universe if Einstein had not already appropriated the fourth dimension for other purposes.

The perception of this hidden principle in all things, call it reason, law, logos, what you will, is science, and the quest of it is scientific research. The object of the quest is the unification of diversity, the solution of the old problem of the one in the many. It is an alchemical search for the universal solvent of all questions. The problem is to find the greatest common factor of everything in the world.

The lucky thing about this for the teacher is that the material for this quest, for practice in scientific research, is to be found everywhere and free. Natural law is all-pervasive and to be discovered in everything, if we know how to look for it. Books and apparatus are merely aids in the search. They are like the dumb-bells and parallel bars of the gymnasium, convenient, but you can get just as much exercise without them.

You can, therefore, begin your scientific study with whatever is handy and go as far as you like. There used to be an old story of a farmer who, in advertising his farm for sale, called attention to the peculiar advantage of its central situation. "You can start from my farm," he said, "and go anywhere in the world." In every city we visit we find that the board of trade or realtors issue a map, looking unpleasantly like a spiderweb, with lines radiating in all directions to other towns and proving that this particular city is really the focus of the country. The funny thing about it is that all these maps are true. According to the theory of relativity, the place where you stand, wherever you may be, is the cen-

tral point of the universe—for you. This is what we have always felt, but we have not had it mathematically proved before.

So the choice of material for scientific study is merely to find what is most convenient to handle and will disclose its secret principle most easily. But the study has another aim than training in the scientific method and knowledge of the most important scientific laws. This is the acquisition of useful information. General science tries to kill these two birds with one stone and this disturbs its aim a bit. You will see, by comparing text-books, that authors differ as to the relative importance of these two objectives. One will curtail the demonstration of scientific theory to give room, or rather time, for a fund of practical knowledge; another author will sacrifice everything for principle. I will not venture into this controversy, but content myself with the general observation that general science should keep to the practical so far as practicable. The question reminds me of the discussion that arose in the White House during Lincoln's administration as to what was the proper height for a man. The dispute was referred to the President. "Mr. Lincoln, how long do you think a man's legs ought to be?" Lincoln replied that, in his opinion, a man's legs ought to be long enough to reach from his body to the ground. So I say of a science: it does not matter how high the science rises into the air so long as it stands upon the solid ground.

But a science, like a radio set, works best when it is well grounded. The taller the antennae the better must be the grounding. Even mathematics, the most ethereal of the sciences, has grown faster since it has been set to work, although the friends of mathematics predicted that utilitarianism would be the death of it. The science could not survive such servile employment. When the higher mathematics began to be found useful in the manufacture of electrical appliances, President Patton, of Princeton, expressed his great regret, for, said he, "as the utility of a subject increases, its educational value decreases." The same position on the question was taken by Professor Wendell, of Harvard, who held that "the very fact that the abstractions of mathematics must generally seem repellently lifeless is part of the secret of their educational value." To these educational authorities, I may add the opinion of another philosopher, Mr. Dooley, of Chicago, who, in reply to a question from Mr. Hennessy as to the proper content of a curriculum, said, "It don't matter much what ye study, Hinnessy, so long as ye don't like it." This is the theory of formal discipline carried to its logical extreme.

I do not present these quotations in order to convert you to the idea that the chief attraction of a study is its distastefulness and that its chief use lies in its uselessness. If you were converted you would throw up your jobs from conscientious scruples, for general science is definitely committed to the utilitarian point of view, however wide may be differences of opinion as to its application.

Let us now turn from the question to the consideration of method of approach.

The study of an object may begin with analysis, but it should end with synthesis. It is natural for a child to take his toys apart, but later he likes to construct things. A boy can learn a lot by taking a clock apart, but he can learn more by putting the pieces together and making it run. But what good would he get if he were not given a clock at all but first shown a collection of screws, pins and springs from clocks and all other sorts of machinery to be studied as "ferrology," another collection of glass and porcelain in the department of "vitrology," and a third collection of woodwork of all kinds in the classroom of the professor of "xylology"? Could he be expected to sort these specimens out according to the

machine from which they originally came and put together the clock in his mind? As a matter of fact we know that one of the chief deficiencies of our system of education is that the students do not get together what they learn in the several classrooms. They often fail to realize that all knowledge is one and all facts are correlated. And one of the reasons why they have difficulty in learning this from their teachers is because sometimes their teachers do not realize it themselves.

I hope that no one will misunderstand my remarks as an attack on specialization as a method of research. It would be perfectly proper, and very likely useful, to take out all the iron, the glass and the wooden parts of various machines and bring them together for purposes of comparison, but the man who does this should not consider his job complete until he has put everything back where he found it in the end and seen that the machines are in as good working order as when he began to dissect them. He should not leave it to his students to do the latter and harder half of his job.

Science consists largely in showing relationships, not merely relationships of like materials or parts, but still more the relationship of unlike parts to one another, in the working machine or living creature. I fear that some lose sight of the organism in their study of the organs. In the case of living beings the whole is not equal to the sum of its parts. It is much greater, and to find out wherein lies this unexplained increment of the integration is the chief task of the biologist.

To preach the unity of nature is the gospel needed at the present day. It would be well if there were injected into modern science something corresponding to the spirit of fierce monotheism that the Jew and the Mohammedan injected into theology, to counteract the tendency of the specialist to set up his own ology as an independent god and make all the other ologies bow down to it. Here is the opportunity of the teacher of general science. In the high school you have fresh brains which have not yet been partitioned off into the idea-tight compartments for segregation of the several sciences. You have a chance to give your young men and women a vision of the promised land from a Pisgah peak before it has been divided up among the twelve jealous tribes.

It is often said that a unified view of the universe, that is to say, a philosophy of nature, has now become impossible owing to the vast accumulation of facts material by a century of research. But I do not believe that that is the difficulty. I think it is more that philosophy has gone out of fashion. It is true that no man can even read all the literature of a single science. He can carry in his mind only a small and decreasing fraction of the data. But, on the other hand, new generalizations are continually being discovered that embrace wider ranges of phenomena and so relieve the mind of its burden of detail. A high school text-book of chemistry or physics which can be read in a few hours contains a greater amount of reliable information than all the volumes in existence a hundred years ago. The task of becoming master of universology is easier now than it ever was, but the desire is lacking.

I can best illustrate my point by reference to two popular books that recently appeared, "The Outline of History" and "The Outline of Science." The history was the work of one man, H. G. Wells, and whatever the professional historians may say, it certainly met a long unfelt want of the public by presenting in readable form a complete and up-to-date conspectus of the history of the world from the solidification of the earth's crust to the downfall of the German Empire. It reflected the tastes and prejudices of the author, but it had the inestimable advantage of a unitary point of

view. It derived its force from the fact that it had poured entire through the narrow channel of one man's skull.

But when the publishers wanted a companion piece to cover the field of science in similar fashion they could not find anywhere an author to write it. The best they could do was to get a professor of biology to edit the work, writing such of the chapters as he felt competent to do and calling in a dozen experts to do the rest. The result is a useful book, but not so interesting as those Professor Thomson has written by himself, for it lacks coherence and continuity.

I have asked various people why some single scientist did not write the "Outline of Science" and they have invariably replied that it was because no person could so completely master the field of science as he could the field of history. But I do not believe it. I fancy that if you would heap up all the books on history extant beside all the books on science in the world, the history pile would overtop the science pile. And the history pile would be much more difficult to master than the science because history is still mostly a mass of miscellaneous statements, not so carefully verified and hardly correlated at all. I believe an outline of science could be written by one author. I believe Wells could have done it. I think quite likely he will sometime. He probably could do it with less trouble than the "Outline of History," for he was trained in science under Huxley, but had no such schooling in history. Whether the scientists would greet a one-man "Outline of Science" any more cordially than the historians greeted Wells's "Outline of History" may be doubted.

In the old-fashioned New England college out of which our universities were hatched, it was the custom for the president to take the seniors in hand and give them a course in metaphysics and philosophy with the aim of weaving together into a firm fabric the several threads which had been spun in the various classrooms during the four-year course. The custom has fallen into disuse, perhaps because the modern university president is more apt to be an expert in politics or finance than in theology and metaphysics. Yet it seemed to serve a useful purpose by securing a certain perspective in the point of view and by unifying the curriculum. My criticism of it would be that the perspective or orientation course should be placed at the beginning of the college work, or earlier, instead of at the end of it. My opinion is confirmed by the fact that many colleges are now introducing such survey courses into the freshman year for history or natural science or both. These courses are in the formative period and often suffer from the same fault that has been found with the general science, that is, that the course consists of a congeries of selections from the several sciences, not a unification of them all. This is due chiefly to the lack of teachers with the unitary point of view. In some institutions the unity of the course is confined to the common name and hour, for no one man can be found in the faculty capable of giving it. So the professors from the various departments take turns on the platform, and each displays his line of electives before the prospective investors, paying no attention to his colleagues except to demonstrate the superiority of his own wares.

Yet the introduction of such fundamental orientation courses is, in my opinion, one of the greatest advances in college education of the current decade, and I believe that it will eventually develop a new system of natural philosophy and sociology that will incorporate and unify the vast mass of scientific and historical facts that have been unearthed by the energetic research of the past hundred years.

A similar generalizing and synthesizing course of a more elementary character

seems to be needed in the first year of the high school. The modern high school corresponds more nearly to the old college than does the modern university. Many of the high school students are as old as the college graduates of the last century, whether their age is measured by years or intelligence tests. They are at the age when they take more interest in generalization than at any other period. The thoughts of youth are long long thoughts. This is the time of the hasty adoption and ardent advocacy of strange theories. He catches a glimpse of truth in some novel notion and takes it as the key to all the problems of the universe. This is the time when, if ever, original ideas are most apt to spring into his brain. His unstable mind wanders about like a spider seeking for a point of attachment on which to spin its web and woe to him if it becomes attached to a weak and inadequate foundation. This is the time when a casual remark from a teacher may fix a philosophy for life.

EDWIN E. SLOSSON
WASHINGTON, D. C.

DISCUSSIONS RELATIVE TO THREE PAPERS PRESENTED AT THE CONVOCATION OF THE UNIVERSITY OF THE STATE OF NEW YORK

I. THE whole educational world is keenly interested just now in certain efforts to separate the most gifted pupils and to educate them in separate groups. It requires no proof to substantiate an axiom. Pupils who have large gifts in capacity to learn rapidly can learn more rapidly than pupils who have small learning capacity. Just how much more rapidly gifted pupils may learn is being determined in several groups of pupils. Undoubtedly schools have lost to society some of its best brains by failure to *keep rapid learners learning rapidly*. A monorail car, a gyroscope or an aeroplane has stability as a working instrument only when it is in rather rapid motion. And modern educational technique is enabling us to determine whether we are trying to gain our educational speed with monorail cars and aeroplanes or with breaking plows and log wagons. I believe that few persons will argue against the proposition that we should differentiate rapid from slow pupils and keep them all properly occupied by gauging *what* they do to their *capacity* to do.

But the task is not so simple as that. To have a boy cover three years of reading or arithmetic in two years may be of but small advantage and may involve disadvantages which nullify the gain in speed. As subjects of study are now organized arithmetic for a twelve-year-old boy involves social, commercial and industrial situations two years older than those appropriate for an eight-year-old boy. We do not need twelve-year-old arithmetic for an accelerate eight-year-old boy. We need the intellectual exactions of twelve-year arithmetic in terms of the social, commercial and industrial situations which an eight-year-old boy can properly sense. The eight-year-old boy is usually biologically, physiologically and socially an eight-year-old. He may be classed with other gifted boys. This reclassification does not change their biological or social ages. To cause them to move more rapidly in subjects of study which are organized for pupils of older biological ages may gain intellectual occupation for a time at the expense of social growth and adjustment. We need but cite the terrible social misfits and individual tragedies of gifted people who moved rapidly in mere intellectual acquirements, but who then passed out of their proper biological and social groups without really passing into other such groups. Their gifts were the occasion of their becoming social failures. The really big problem to be attacked by those

who would segregate gifted pupils is to reorganize subjects of study so that more intellectual exactions in both quantity and quality may be made by use of material and situations which are commensurate with the pupils' biological and social ages. Very little has been done on this task, and until it is done, too much or too highly refined segregation seems quite questionable.

II. A good many years ago in the San Francisco Normal School, Mr. Frederick Burk developed his scheme for casting subject-matter into small allotments, so organized and so assigned that each pupil might be constantly engaged upon clean-cut tasks. Mr. Burk had the subjects of study so organized that the teacher could readily assign tasks or lesson units to each pupil. Also, the teacher might readily and easily check on the pupil's accomplishment. He might determine both whether the pupil had completed the task and whether the pupil might himself determine whether he had completed the task. By this plan, carried painstakingly into arithmetic, spelling, penmanship, geography, history, etc., the pupils in this San Francisco school were able to work individually and to progress in attainment of subject-matter, each according to his own rate.

The persons chiefly responsible for the development of the "Winnetka Plan" and the "Dalton Plan" were students in the San Francisco Normal School and based their own later-developed plans upon the work of the San Francisco institution. The outstanding common element in these two plans seems to consist of their efforts to discontinue the class recitation as that is usually understood. The Dalton Plan focuses attention upon the development and use of appropriate units of work, and upon the technique of handling them by individual pupil responsibility. The Dalton Plan accepts subject-matter essentially as presented in the best text-books. The Winnetka Plan adopts the scheme of separately assigned units with individual responsibility for learning them, but focuses its attention equally upon discovery and organization of more stimulating and more useful types of subject content. Each plan has many ingenious and effective devices for securing an improved speed and possibly improved accuracy in attainment. In the hands of teachers who have had superior training, with clean-cut individual assignments, well-supervised study and with constant effort to place responsibility upon each pupil, these plans both seem to produce commendable results so far as these results are as yet available for study. It must be said that from the point of view of established records both plans are yet in the experimental stage.

Questions which will continue to arise until answered more convincingly than has yet been done are: Is not this plan for fragmenting and ticketing subject-matter in small individual units in danger of leading us to formal and finished notions of thought units, thus producing new types of rigidity more binding than those from which we would free the pupils? Is subject-matter for current social effective living capable of being set in lessons or units which can be adequately sensed without the constant suggestive thought and group experience of others of the pupils' own age and stage of life? Can the pupil be adequately educated by himself, his assignments and his skilful teacher? Must he not have his classmates' discussions so that he may really sense the meaning of what he learns? Do not cooperative class discussions with their unsolved queries give a more true appreciation of the progressive nature of truth? Should not pupils gain the often disquieting knowledge that many very important considerations are still on insecure foundations, and that such topics can not be presented as satisfying and finished tasks? Do the plans, there-

fore, provide enough group work to insure not only the needed social setting but needed intellectual cooperation? How shall we meet the fact that many teachers find recitation teaching easy as compared with individual teaching? That their day is long and size of classes such that they can not possibly apply an individual method to all? Forty-five to fifty pupils and sometimes more, in periods of 30 to 45 minutes, and sometimes shorter, and five to six such classes per day, presents a situation which almost or quite sterilizes any scheme for improved individual education. It is certainly harder to teach by an individual method, or to teach new types of subject-matter than to do conventional things in conventional ways; *but it is immensely more worthwhile* for all concerned.

Other queries arise regarding statements made in one of the papers, statements which may be misleading when separated from full contextual setting. For example: "The students pass from one laboratory (class room) to another at will"; "a student may work all day in one subject if so inclined"; "in no case is a student told absolutely what he must do unless he has gone far astray in his planning." We must ask about the loss of time and opportunity through a possible excessive freedom of guidance and decision by persons too young and too inexperienced to carry so large a responsibility.

III. Much has been said during the last 15 years concerning those experiments designed to produce a kind of introductory high school science course which shall be worthwhile for those young Americans so many of whom now take a more or less successful try at the first high-school year. It would hardly be possible to find in educational literature a more pleasing statement of the philosophy of this course than that presented by Dr. Slosson. It will help teachers of all subjects if they will read Dr. Slosson's paper.

This philosophic paper did not and was not expected nor desired to undertake to tell teachers what to teach and how to teach it, in order that this true philosophy of science might thus become more commonly the possession of those who study general science.

But class-room teachers reasonably well trained in science have for more than fifteen years been patiently endeavoring to develop types of organization and teaching practices from which may come such an insight into natural phenomena. It is man's efforts to understand and control nature which has led to his appreciation and knowledge of nature's principles.

It must be said that what Dr. Slosson advocates, so far as high schools are concerned, has been in operation in very many American high schools for a decade or more. That part of his discussion which pertains to college synthetic courses in science is in operation in very few colleges, but gives promise of rapid growth. Indeed much of Dr. Slosson's paper seems appropriate for the college situation rather than the high school, since in most parts of the country, high schools are already doing things for which he pleads.

No high-school subject other than introductory science has had so much experimentation directed to it during the past 15 years. In an age when scientific results and methods of thinking are constantly talked about, it became clear that young people were not receiving the kind of science education which gave them full possession of these results and ways of thinking. The difficulty could not be in lack of worthwhile materials for the course, for all people each day have their lives conditioned by modern science. The difficulty could not be in lack of pupil interest, for experience constantly showed that young people possess great curiosity and incisive inquiry regarding natural phenomena. The difficulty could not be in lack of apparatus for

teaching science, for it had been found that pupils learn science most engagingly when using the common materials of home, community and industry.

A new alignment of science topics was therefore organized with each separate science contributing as it could to a young student's appreciation, understanding and social use of the topic in hand. It is not possible nor desirable in this connection to outline the content of these courses. It may be judged by whether it has been found to work. The following summaries of specific studies are significant.

In 50 private high schools in Massachusetts in 1924, as studied by Miss Pauline Watkins, of Cambridge, it was found that of the 50 schools 45 now teach general science. There has also been an increase in the other sciences taught in these schools as shown by a comparison of Miss Watkins's report with statistics of a decade ago.

In 1921–22, 18.3 per cent. of all pupils in 13,700 schools were enrolled in general science in the United States. There were about 394,000 pupils in the 13,700 schools. New York State enrolled 5 per cent. We can not understand how our own state has lagged behind the rest of the country unless because of restrictive influence from those charged with supervision of science work.

It has been argued that such a course in general science satisfies or stupefies further science interest. This is not true as shown by the facts in the case.

Dr. E. R. Downing (*Sch. Sci. and Math.*, *24*: 1924) in a study of the high schools of Illinois for the year 1923–24 finds that 67 per cent. of them teach general science in the first year of the four-year high school. Other science subjects have a larger percentage of offering in Illinois high schools than shown in any period before introduction of general science.

In Pennsylvania in 1922–23, according to a report of the state department of education, more than 53,904 high school pupils were registered in the courses in general science. In that year a definite science sequence based on general science was presented in the four-year high schools of Pennsylvania, and the total registration for all science subjects was 19.8 per cent. larger than in the preceding year.

Dr. G. W. Hunter, of Knox College, is just completing a very extensive study of the tendency toward a sequence of science studies, in more than 1,000 representative four-year high schools. His data soon to be published show that general science has practically become the first-year basic science, with biology, chemistry and physics in the succeeding years.

Mere numerical representation may seem unimportant, but really means that no science subject has ever been so largely taught in any one high school year in the United States or to so many high school pupils as is general science in the first high-school year.

But more important is the question whether there is any general recognition of types of outcomes from this course and common course content and method by means of which these outcomes may be secured. Miss Ada L. Weckel and Mr. W. S. Kellogg have made independent and exhaustive studies separately published, which studies show a very strong tendency toward a common body of subject-matter and fairly common methods of work proposed. Indeed, there is danger of having a standardized course content, instead of standardized types of outcomes from varying types of course content.

It would be very serious and very disquieting if experimentation were to be stopped in general science, in the interest of construction of a rigid and detailed course syllabus which has had no previous class-room trial. This course and others in other subjects will probably continue to be stimulating and highly useful so long as

many thoughtful teachers are encouraged to seek constantly for ways of making instruction more effective. The end of experimentation is better materials and better methods, but progressively better each year; not fixed courses, which bind teachers and pupils so that any real growth must break bonds at some point.

It is of much importance to note that the general science course as it originated and as it now stands is the result of a serious attempt to determine subject content and class-room procedure, through the scientific method of experimentation. Office-made courses of study are likely to be opinionated, rigid and ill-fitting when used with pupils. Ready-made clothing provides perfect fits only for conventional sizes of human beings. Many alterations and adjustments are involved when we try to fit "ready-mades" to other than conventional types and most types do have individuality.

Otis W. Caldwell
Lincoln School of Teachers College

EDUCATIONAL EVENTS

ELECTION OF RHODES SCHOLARS FOR 1925

The elections of Rhodes scholars for the University of Oxford from 32 states were announced last week by Dr. Frank Aydelotte, president of Swarthmore College and American secretary to the Rhodes trustees. The competition was the keenest in the twenty years since the first Rhodes scholar was elected in this country. There were 507 candidates representing 184 colleges and universities who qualified for the final competition. Each institution is allowed to present only from two to five representatives, depending on its enrollment.

According to the regulations of the Rhodes trustees, a man may be a candidate for a Rhodes scholarship either in the state in which he resides or in the state in which he has received at least two years of his college training. This makes it possible for any college or university to have competitors entered in a number of states. Princeton headed this year's list with 27 candidates in 17 states; Harvard had 22 candidates in 11 states; Yale had 20 in 10 states; Cornell 12 in seven states; Vanderbilt nine in four states; Oberlin seven in four states, and Michigan seven in three states.

In the elections by state committees of selection reported last week, three candidates were accredited to the United States Military Academy at West Point; this was the first time in the history of Rhodes scholarships that an award has been made to a West Pointer. Princeton had three successful candidates, Brown University had two and Harvard had two.

Rhodes scholars are chosen by committees composed, with the exception of the chairman, of ex-Rhodes scholars living in the state. Selections are made on the three-fold basis of character, intellectual ability and physical vigor, as shown by participation in out-door sports and in other ways.

The following is the list of 1925 Rhodes scholars-elect, subject to ratification by Rhodes trustees:

Alabama: Robert J. Van de Graff, University of Alabama.

Arkansas: J. W. Fulbright, University of Arkansas.

California: John Whipple Olmsted, University of California.

Colorado: John L. J. Hart, Harvard University.

Connecticut: John C. R. Whiteley, Wesleyan University.

Georgia: Robert Shields Sams, Princeton University.

Illinois: Reuben A. Borsch, Illinois Wesleyan University.

Indiana: Phillip Blair Rice, Indiana University.

Iowa: Neil Louis Crone, Grinnell College.

Kansas: Ralph M. Hower, University of Kansas.

Kentucky: Robert Lee Baker, Jr., Brown University.

Maine: Lawrence Brock Leighton, Bowdoin College.

Maryland: Charles E. Saltzman, Jr., U. S. Military Academy.

Massachusetts: Mason Hammond, Harvard University.

Michigan: Douglas V. Steere, Michigan Agricultural College.

Minnesota: Franklin D. Gray, University of Minnesota.

Mississippi: Elijah Wilson Lyon, University of Mississippi.

Missouri: Arthur D. Bond, University of Missouri.

Nebraska: John D. Westerman, University of Nebraska.

New Hampshire: Standish Weston, U. S. Military Academy.

New Jersey: Paul Swain Havens, Princeton University.

New York: Frank D. Ashburn, Yale University.

Ohio: Joseph Sagmaster, University of Cincinnati.

Oregon: Clinton N. Howard, University of Oregon.

Pennsylvania: Owen B. Rhoads, Haverford College.

Rhode Island: Arthur W. Packard, Brown University.

Tennessee: Wm. S. Vaughn, Vanderbilt University.

Texas: W. Terrell Sledge, University of Texas.

Vermont: Jas. H. Macomber, Jr., University of Vermont.

Virginia: Coleman Carter Walker, University of Virginia.

Washington: Francis R. Johnson, U. S. Military Academy.

Wisconsin: Edward Francis D'Arms, Princeton University.

THE UNIVERSITY OF PENNSYLVANIA FUND

A PERMANENT organization having the twofold purpose of securing financial support and good-will was announced last week by President Josiah H. Penniman, of the University of Pennsylvania. The board of trustees has authorized the formation of the University of Pennsylvania Fund, with "the fundamental aim" of providing "training which both in quality and scope is excelled by no other university and to promote scientific research as the most effective means by which the University of Pennsylvania can contribute to the intellectual and economic welfare of the nation."

The chairman of the managing committee of the fund is Thomas S. Gates, a trustee and a graduate in the class of 1893. His associates on the committee are: Charles Day, '99, vice-chairman; F. Corles Morgan, '96, treasurer; W. O. Miller, '04, general manager; Dr. Edgar Fahs Smith, former provost; L. C. Madeira, '72; Randal Morgan, '73; John C. Bell, '84; George H. Frazier, '87; Sydney E. Hutchinson, '88; Josiah H. Penniman, '90; Dr. J. Norman Henry, '93; Theodore J. Grayson, '02, and Edward Hopkinson, Jr., '09.

The managing committee is now making a study of the needs of the university and a decision is expected shortly as to the amount of money which will meet the immediate requirements and the future developments of the institution. In commenting on the organization of the fund, Mr. Gates said:

> It has taken a long time to bring about the institution of an adequate movement to secure funds for the university. This is because all who were interested in the discussions that have been going on were determined that this should be no haphazard or ill-advised venture, but a thorough and well-grounded plan of procedure.
>
> In the past the sum of $10,000,000 has somehow or other become fixed in the public mind as the amount of the university's needs. I have no hesitancy in saying that the ultimate objective of the fund will far exceed this figure. It is inconceivable that this university, a national institution, which has grown up hand in hand with the city and the state for eighty-five years, could with such an amount, continue to occupy that position and status among American universities which is desired by every alumnus. On the other hand, it is quite certain that the objective of the fund for the period lying immediately ahead, the year 1925, for instance, will be considerably less than $10,000,000.

President Penniman has said that "the fund signifies a determination on the part of the alumni and other friends of the university to keep it in a position where it will be able to render a service unexcelled by any university in this country."

THE DORMITORY SITE CONTROVERSY AT YALE UNIVERSITY

A DISPATCH from New Haven announced that work on the new dormitory on the Yale campus will be resumed at once. The building of the dormitory at the place selected by the corporation was strongly opposed by the students, whose opposition was presented through the undergraduate publication, the *Yale Daily News*. The statement of the corporation was as follows:

> The Yale Corporation after a conference with the board of permanent officers of Yale College and the executive committee of the alumni ad-

visory board, voted to carry out its recommendation of the architect of the university plan and resume building operations on the campus dormitory, similar to Connecticut Hall, as the first step in providing the necessary dormitory accommodations. Construction was suspended on November 8 at the recommendation of the committee on architectural plan to permit a conference with the permanent officers of Yale College at which their views regarding the desirability of the building might be expressed. On the wisdom of going on with the building the faculty was divided. It voted unanimously, however, that the decision of the corporation, whatever it might be, would receive its support. On November 29 the executive committee of the alumni advisory board, the central body representing the Yale graduates, met with other members of the board at New York, when President James R. Angell presented a history of the plans for the proposed building and discussed such criticism as had been offered. The meeting went on record as in accord with the unanimous vote of the college faculty that any final decision of the corporation would meet with its approval.

The *Yale Daily News* carried the following editorial comment:

The corporation's decision to continue work comes as no great surprise. To many it will be a great disappointment, to some a serious mistake, to a few an occasion for gloomy despair. There is no one who will not see the campus changed without some feeling of regret and even those who understand most clearly the need for new dormitory room must also devote a sigh to the alteration of the thing which has been the center of life in the college. Approval or disapproval of the hall is, however, a matter of opinion, and however much its prospective brickiness may irritate one's artistic sensibilities there is every reason to believe that the college will continue to survive.

So far as the whole discussion is concerned, in regard to its much more important aspects, the relations between corporation and the faculty, it all seems to have been eminently worth while. There is reason to believe that the understanding and desire for cooperation is greater now than it has been for a long time. If this is the case, it is possible to forget personal regret at the disturbance of the campus as it was.

THE PROPOSALS OF OKLAHOMA TEACHERS FOR EDUCATIONAL LEGISLATION

RESOLUTIONS have been adopted by all the district associations of the Oklahoma Education Association calling upon the legislature to hold a special election some time in March, 1925, "to resubmit to the electors of the state a proposition similar to the recent fifteen dollar *per capita* amendment." This amendment, voted for by the people of Oklahoma in October, 1923, to equalize the burden of public instruction, was found to be improperly submitted.

The association points out that "the public school attendance is larger this year than ever before in the history of Oklahoma and the assessed taxable wealth of the state has not been increased. The most imperative need of the schools of Oklahoma at this time is some means by which the public schools can be better financed."

Additional resolutions of the association are as follows:

WHEREAS, The teachers of the State of Oklahoma have undertaken to eradicate illiteracy from the State of Oklahoma by 1930; therefore be it

Resolved, That the legislature be asked to provide for adult education as a part of the regular educational program of the state through the employment of a full time director and payment of a part of the expense of instruction in night schools;

Whereas, The attendance in the public schools in Oklahoma is very unsatisfactory, as evidenced by the fact that of 750,000 school children only 450,000 are in attendance; therefore be it

Resolved, That the present compulsory attendance laws be changed, amended, or modified in such a way as to make it effective, understandable and enforceable;

Whereas, There are so many different kinds of certificates and so many kinds of issuing authorities in the state of Oklahoma that school boards and teachers become confused in the matter of valid certificates; therefore be it

Resolved, that the State Board of Education be given exclusive authority in the certification of teachers throughout the State of Oklahoma.

SABBATICAL LEAVES FOR NEW YORK CITY TEACHERS

AFTER six years of agitation on the part of various teachers' organizations the New York City Board of Education has adopted the sabbatical leave plan recommended by the Board of Superintendents. The plan was recommended by the committee on law of the board, of which Commissioner R. S. McKee is chairman. It

becomes effective on and after February 1, 1925.

The recommendations of the superintendents were as follows:

1. To grant sabbatical leaves for a period of half a school year, to begin with the school term in February or September, thus coupling the same with the summer vacation preceding or following such leave.
2. To deduct from the teacher's salary an amount sufficient to pay the compensation of the substitute who will take her place.
3. That the purposes for which the leaves may be granted shall be study, travel, rest and restoration of health.
4. To grant leaves only to teachers having ten years or more of service, preference to be given to the most deserving.
5. To grant for the year 1925 not more than fifty leaves to high school teachers and not more than one hundred to elementary school teachers.

As quoted in *The Sun*, Commissioner McKee reported that "the present recommendation is the result of the above requests and, in accordance with the suggestion of the committee on finance and budget, the plan involves no expense to the Board of Education and very little to the teacher:"

Your committee believes that the adoption of the plan will prove a benefit to the school system in that it will be the means of retaining in the service experienced teachers, who through the rest and change afforded by the leave of absence will be less subject to lengthy periods of illness or early disability retirement. It will benefit the teachers' retirement system by postponing disability retirement, the most costly of all retirements, and it will benefit the teacher herself, both physically and mentally, by permitting her at a cost of only $500 to enjoy a seven months' vacation.

Your committee is informed that several cities in the east—Boston, Worcester, Cambridge, Gloucester, Rochester, New Rochelle, etc.—have adopted the plan of granting sabbatical leaves of absence and are highly pleased with it.

The only possible objection to the plan would be the disadvantage to the pupils of being deprived of their regular teachers and taught by substitutes. It is hoped, however, that the employment of competent substitutes, secured through the prospect of continuous employment, will minimize this disadvantage.

THE ASSOCIATION OF AMERICAN COLLEGES

THE eleventh annual meeting of the Association of American Colleges will be held at the Hotel Morrison, Chicago, from January 8 to 10, inclusive. The program will begin on Thursday evening, January 8, with a dinner at 7 o'clock, when the president of the association, Chancellor James H. Kirkland, of Vanderbilt University, will give an address, and Dr. Graham Taylor, of Chicago Commons, will speak on "The social and civic responsibility and opportunity of American colleges and their graduates."

At the business session on Friday, January 9, at 9:30 a. m., reports will be made by Dr. Robert L. Kelly, secretary-treasurer; by Dr. Clyde Furst, secretary of the Carnegie Foundation, as chairman of the commission on the organization of the college curriculum; by Dr. Ben D. Wood, of Teachers College, Columbia University, and by Dean John R. Effinger, of the University of Michigan, chairman of the commission on academic freedom and academic tenure. Dean L. M. Spivey, of Birmingham-Southern College, will speak on "Practicalizing the social sciences."

The remainder of the program follows:

FRIDAY, JANUARY 9
2:00 P. M.

Report of the Commission on Faculty and Student Scholarship—*The American graduate school:* President Raymond M. Hughes, Miami University, *Chairman.*

Report of the Commission on College Architecture, President Donald J. Cowling, Carleton College, *chairman: The place of the arts in American education;* Dr. Frederick P. Keppel, president of the Carnegie Corporation.

Discussion: *The contribution of the university college of liberal arts to the problems of public life:* Dean J. B. Johnston, University of Minnesota.

DISCUSSION
7:30 P. M.

Report of the Commission on the Distribution of Colleges: Chancellor S. P. Capen, *chairman;* Dr. George F. Zook, Specialist in Higher Education, U. S. Bureau of Education.

Franco-American reciprocity: Dr. Robert L. Kelly.

Higher Education and world relations: Dr. Yusuke Tsurumi.

SATURDAY, JANUARY 10
9:30 A. M.

Debate—RESOLVED: That the federal government should establish a department of education, with a secretary in the president's cabinet. *Affirmative*—President John H. MacCracken, of Lafayette College. *Negative*—Dr. Charles H. Judd, director of the School of Education, University of Chicago.

SURVEY OF THE SCHOOLS OF THE PHILIPPINE ISLANDS

THE legislature of the Philippine Islands has voted a survey of the schools. Governor General Leonard Wood is giving it his support. Dr. Paul Monroe, director of International Institute, Teachers College, Columbia University, is chairman and director of the inquiry.

Other members of the Survey Commission are Dr. Tavera, of Manila, and Dr. Henry Suzzallo, president of the University of Washington. Vice-governor Gilmore, *ex-officio* secretary of public instruction of the Philippine Islands, appointed Dr. Monroe as chairman and director of the inquiry.

The selection of educational experts for the inquiry staff was left to Dr. Monroe, who has appointed a number of leading American educators.

The investigation of financial administration will be made by Dr. Carter Alexander, of the research staff, educational finance inquiry. Dr. Alexander was formerly assistant superintendent of schools in Wisconsin and is now professor of education in Teachers College, Columbia University. Health education and physical education is to be investigated by Dr. Jesse F. Williams, professor in Teachers College, Columbia University. An inquiry into universities, higher and private schools will be taken by Dr. Stephen S. Duggan, director of the Institute of International Education (Carnegie Foundation), and professor in City College, New York. The study of the high schools is to be handled by Professor George S. Counts, of Yale University. An investigation into primary education and language teaching is in charge of Miss Mary E. Pennell, assistant superintendent of schools, Kansas City, Missouri. Dr. Frederick P. Bonser, professor at Teachers College, Columbia University, is in charge of the investigation into elementary schools and industrial education.

Dr. Lester M. Eilson, who has been engaged in a survey of the schools of Mexico, is also a member of the Inquiry Staff, engaged in teacher training phases. As also is Dr. Harold I. Rugg, professor of education, Teachers College, Columbia University, and educational psychologist to the Lincoln School connected with Teachers College. Dr. Rugg is to have charge of tests and measurements.

EDUCATIONAL NOTES AND NEWS

REAR ADMIRAL LOUIS M. NULTON, now in command of a battleship division in the Pacific fleet, has been selected by the Navy Department to succeed Rear Admiral H. B. Wilson as superintendent of the Naval Academy at Annapolis, when the latter retires from active service next February.

DR. CHARLES RUSSELL, for the past three years professor of elementary education and director of the division of elementary education in the University of Toledo, has been appointed principal of the State Normal School at Westfield, Mass.

A. H. SANFORD and C. A. Whitney have been made an executive committee in charge of the La Crosse State Normal School, pending the selection of a president to succeed F. A. Cotton. A committee of five regents will recommend a new president to the board.

AT the recent annual meeting of the Carnegie Foundation for the Advancement of Teaching, President Josiah H. Penniman, of the University of Pennsylvania, was elected to membership on the Board of Trustees.

HIRAM BINGHAM, long a professor at Yale and now governor-elect of Connecticut, was elected United States senator at a special election on December 16, when he defeated Mr. Hamilton Holt by more than 40,000 votes. Professor Bingham will be inaugurated as governor in January and will then resign to go to Washington to take the seat made vacant by the recent death of Senator F. B. Brandegee.

STATE SUPERINTENDENT CHARLES A. LEE, of Missouri, declined nomination for the presidency of the Missouri State Teachers Association at the recent Kansas City meeting on the ground that "the office of the state superintendent, as

now constituted and conceived, is a political office, while the head of the association is, and ought to be so considered, strictly a professional position." Miss Ella V. Dobbs, associate professor of industrial arts at the University of Missouri, was elected president of the association.

WILLIAM F. RUSSELL, professor of education and associate director of the International Institute of Teachers College, Columbia University, has been appointed acting director of the Institute of International Education, for the next eight months during the absence of Dr. S. P. Duggan, who is participating in the School Survey of the Philippine Islands.

DR. LEROY A. HOWLAND, acting president of Wesleyan University, has been appointed by the governor to complete the unexpired term of the late William A. Shanklin as a member of the Connecticut State Board of Education.

PROFESSOR EMORY N. FERISS, of Cornell University, has been appointed chairman of a committee recently appointed by the U. S. Bureau of Education, to study the problems of the small high school.

PETE W. ROSS, head of the elementary schools of San Diego, California, for twenty years, has been appointed principal of the Point Loma High School by the unanimous vote of the Board of Education.

MISS ELIZABETH WHITE, state rural school supervisor of Missouri, resigns on January 1, to enter the University of Missouri to study for a master's degree.

MISS MARGUERITE WOODWORTH has been appointed acting dean of women of Syracuse University.

DR. PERCIVAL M. SYMONDS has been appointed associate in secondary education at Teachers College, Columbia University, and is assisting Professor Briggs in his research course for high school principals. He is also giving courses in measurements in secondary education and the psychology of secondary school subjects.

EZRA T. BAKER, who for nineteen years has served as treasurer of Radcliffe College, has resigned and will be succeeded by T. Jefferson Coolidge.

JACOB VINER, PH.D., associate professor of political economy at the University of Chicago, has been appointed chairman of a committee, under the direction of the National Tax Association, to recommend proper methods of financing state highways.

DR. ROBERT A. CUMMINS has recently been appointed extension director of the Kansas City Public Service Institute at Kansas City, Mo.

SIR WILLIAM ASHLEY, PH.D., vice-principal of the University of Birmingham, has been appointed a member of the British Committee on Industry and Trade, in the place of Sir William Beveridge.

DR. BOLESLAW MIKLASZEWSKI has resigned as Minister of Education in Poland, after a vote of censure in the Diet. Dr. Miklaszewski was the last representative of the Nationalists in the cabinet.

PROFESSOR CHARLES H. ELLIOTT, head of the department of education of the University of New Jersey, sailed in November for Europe where he will make a study of the English schools. He is on leave of absence from the university.

THE Pennsylvania State Education Association will meet at Erie from December 29 to 31. The society has a membership of more than fifty thousand teachers.

THE Vocational Education Association of the Middle West will also meet in Chicago on February 12, 13 and 14, under the presidency of Lewis Gustafson, superintendent of the David Ranken, Jr., School of Mechanical Trades of St. Louis.

DR. EDWARD L. THORNDIKE, of Teachers College, Columbia University, gave a series of lectures each afternoon during the week of December 8 to 13, at the University of Minnesota, also meeting different groups at dinner conferences each evening.

DR. EDWIN C. BROOME, superintendent of the Philadelphia schools, gave an address on the curriculum at a dinner of the New York Schoolmasters' Club on December 13.

PROFESSOR BRUCE L. MELVIN, of the New York State College of Agriculture at Cornell University, will conduct a short course for school superintendents and teachers in Oklahoma City from February 2 to 6.

PROFESSOR C. GRANT ROBERTSON, principal of the University of Birmingham, England, will be one of the speakers at the fifth annual conference of Iowa high school history teachers, to be held at the University of Iowa on January 23 and 24. He will speak on "Problems of the Rhine" and "Methods of studying and teaching history." Professor Robertson was for 15 years a tutor in modern history at Magdalen College, Oxford. He will spend a month in the United States lecturing under the auspices of the Institute of International Education.

ANGELO PATRI, teacher and writer, gave a talk on "Character training" at the Washington Irving High School, New York City, on December 4, the first of a series of lectures open to the public under the auspices of the United Parents Association, in cooperation with the Bureau of Public Lectures. The other speakers will be: January 16, Dr. Charles I. Lambert, of Teachers College, Columbia University, on "Do we understand our children?"; February 19, Miss Olive M. Jones, principal of Public School 120, Manhattan, on "Understanding our children's schools"; March 19, Dr. Henry Neumann, Brooklyn Ethical Culture Society, on "Problems of adolescent boys and girls," and on April 16, Dr. Elbert K. Fretwell, Teachers College, Columbia University, on "How to play with our children."

SPEAKERS at the Ohio State Teachers Association that meets in Columbus, from December 29 to 31, include the Honorable Norman Angell, British publicist and labor leader; Chancellor E. H. Lindley, University of Kansas; the Honorable Whiting Williams, Cleveland; the Honorable Vernon M. Riegel, Ohio, state director of education; Professor Guy M. Whipple, of the school of education of the University of Michigan, and Dr. L. V. Koos, of the University of Minnesota, Minneapolis.

THERE will be six meetings for the Kansas State Teachers' Association in 1925—in Kansas City, Kans., Coffeyville, Emporia, Salina, Dodge City and Wichita. Heretofore, there have been four group meetings each year. The meetings will be November 5, 6 and 7 at all of those places, the schedules being so arranged that the speakers may visit all the different meetings. A. J. Stout, superintendent of the Topeka schools, has been elected president of the association. The change in the system of meetings was ordered by the board of directors at a meeting held on December 6, to make the lectures and round tables of the association programs available to more teachers at a lower cost than has been the practice. The meetings at Emporia and Dodge City were made only for one year to see whether the increased number of meetings would result in increased attendance and interest.

IN conferring the degree of Doctor of Laws upon Mrs. Calvin Coolidge and Dr. Marion Talbot, dean of women at the University of Chicago, at the installation ceremonies of Mrs. Lucy Jenkins Franklin as dean of women at Boston University, President Lemuel H. Murlin, of the university, addressed the recipients as follows:

GRACE GOODHUE COOLIDGE — Student, university graduate, teacher; daughter, wife, mother; in every station exemplifying the finer qualities of mind and heart we most admire in women; your own works praise you: you have gained the confidence, admiration and love of the American people.

Upon the recommendation of the University Council, I have been authorized by the Board of Trustees of Boston University to admit you to the degree of Doctor of Laws.

MARION TALBOT — Daughter of pioneers in educational progress; graduate and postgraduate of Boston University; distinguished as student, teacher, author, administrator; by example and precept a persuasive and effective influence in broadening and enriching educational opportunities for the young women of America.

Upon the recommendation of the University Council I have been authorized by the Board of Trustees of Boston University to admit you to the degree of Doctor of Laws.

THE one-hundredth anniversary of the first commencement of George Washington University was celebrated on the evening of December 15. At the first commencement, in 1824, General Lafayette was a guest of the universtiy. At the anniversary celebration Ambassador Jusserand was the principal speaker. A paper on Lafayette and the first commencement was read by Mr. Harry C. Davis, of the Board of Trustees of the university. Announcement was

made at the celebration of the beginning of an endowment for a Lafayette alcove in the University library. A portrait of Lafayette copied from that in the capitol is being painted by Mrs. Minnigerode Andrews, and by her presented to the university. The corner stone of the new law school building was laid on the same day, the Grand Lodge of Masons of the District of Columbia conducting the ceremony. The gavel used by George Washington when he laid the corner stone of the Capitol was again brought into use upon this occasion. Mr. William Bruce King, of the board of trustees of the university, gave an address reviewing the history of the Law School. The new law school building is to be called Stockton Hall in honor of Admiral Charles Herbert Stockton, who was president of the university from 1910 to 1918.

A MEETING in memory of Robert Ellis Thompson, who died on October 19 last, was held in the Central High School, Philadelphia, on December 17. Dr. Thompson was a professor at the University of Pennsylvania for over twenty years and afterward president of Central High School for twenty-six years.

PROFESSOR EDMUND C. SANFORD, for many years connected with the department of psychology of Clark University and for eleven years president of Clark College, died suddenly of heart disease when visiting Boston on November 22. Dr. Sanford was sixty-five years old.

DR. JOHN H. WALSH, who retired in 1923 as associate superintendent of schools in New York City, died recently at his home in Brooklyn, aged seventy-one years. Dr. Walsh was the author of a series of mathematical text-books which were widely used. He was superintendent of schools of the City of Brooklyn before its consolidation with New York.

H. E. BUTTRICK, principal of the High School of Commerce, New York City, has died, following an illness of typhoid fever. He was fifty-three years old. A graduate of Yale in the class of 1895, he served as a high school teacher and principal in New York for nearly 30 years.

THE death is announced of William Herbert Carruth, for years a member of the University of Kansas faculty and at one time vice-chancellor.

DR. EDWARD ZIEGLER DAVIS, for many years a member of the German staff of the University of Pennsylvania, died on October 3 at the age of forty-six years.

DR. JOHN IRVINE HUNTER, professor of anatomy at the University of Sydney, Australia, who was to have given the Murphy oration at the College of Physicians and Surgeons, New York, died in London on December 11.

THE American Association of American Colleges will hold its annual convention in Chicago from January 8 to 10.

MRS. CHRISTINE MACDONALD SIMPSON, in the name of her husband, the late Thomas H. Simpson, one of Detroit's prominent manufacturers and industrial executives, has made a gift of $400,000 to be devoted to medical research. According to the terms of the bequest, $150,000 will be spent in the erection of a building for medical research, while the income from the remainder will pay the salaries of medical and scientific directors and their assistants in the pursuit of the work.

MRS. HARRIET SMALL, of Cincinnati, Ohio, has deeded to Purdue University Indiana farm land valued at $150,000. The proceeds from the sale of this land will be used for the erection of a new residence hall for young women, to be known as the Ophelia Duhme Hall.

MRS. JACOB W. WILBUR, of Brookline, Mass., has made a gift of $100,000 to Boston University as the nucleus of a fund for a woman's building at the university.

TRUSTEES of Georgia State College for Women at Milledgeville, meeting at Atlanta, voted to replace the administration building destroyed recently by fire with three new structures to cost about $200,000.

IT is reported that permission to float a $3,000,000 bond issue, to carry out an extensive building program, will be sought in the coming legislature by the board of regents of the University of Texas.

BARNARD COLLEGE will establish an international fellowship by which a Barnard girl will spend a year studying in Europe, while a student from some European university will take a course at Barnard. To found the fellowship $2,000 was raised by the Barnard students and faculty.

A TRACT of land near Algonma, Ont., deeded to the University of Michigan twenty years ago and considered of little value, has been found to contain iron ore of low grade, according to the report of Ralph Stone, a regent of the university. The discovery was made by Chase S. Osborn, of Sault Ste Marie, former governor and at one time regent of the university. While Mr. Osborn places no definite value on the amount of ore contained in the tract, he expresses the opinion its value will aggregate "some millions of tons."

THE Board of Supervisors of San Francisco have appropriated the sum of $1,374,769 for building and improvements in the schools of the city.

THE cornerstone of the new gymnasium of Colgate University was laid on November 21. The building will require an expenditure of $400,000.

A PERMANENT school fund, ultimately to amount to $100,000,000, is being built up for the schools of the State of Washington, and is protected by law so that it can never be touched; the interest alone will be used to help maintain the schools. The fund now amounts to more than $23,000,000 and is invested in bonds. The money has come from the sale of school lands of the state, and only slightly more than one fourth of the lands have been transferred. These lands, some of them covered with timber, are continually rising in value. Clark V. Savidge, state commissioner of public lands, estimates that the school endowment will exceed $100,000,000 when all the lands have been sold. The state has reserved all mineral, gas and oil rights that may be involved, and this is expected to be a source of large revenue to the schools of the future.

THE Columbia University Library now contains more than 1,000,000 bound volumes, it is stated in the annual report of Professor William H. Carpenter, acting librarian. Recent growth of the collections has been rapid. Acquisitions in the fields of legal history, European law, and the development of legal institutions have carried the number past the million point, the aggregate of volumes on June 30 having been 893,147. Unbound pamphlets total about 50,000. Professor Carpenter announces the total recorded use of the libraries of the various schools of the university during the year as 1,204,076, which represents the number of books used and loaned.

AT the convocation of the University of Chicago on December 23, 98 candidates received the bachelor's degree in the Colleges of Arts, Literature and Science, the School of Commerce and Administration, and the College of Education. There were four candidates in the Divinity School for the master's degree and one for the bachelor's; in the Law School one for the bachelor's degree and two for that of doctor of law. In the Graduate Schools of Arts, Literature and Science there were 37 candidates for the degree of master of arts or science, and 14 for that of doctor of philosophy, a total of 51. In Rush Medical College, now a part of the university, 13 candidates received the four-year certificate and 17 the degree of doctor of medicine, a total of 30. The total number of degrees conferred was 179. Among the graduates from other countries were an East Indian woman; a Japanese and a Filipino who received a master's degree; and a Chinese who received the degree of doctor of philosophy.

THE secretary of the new committee on choice of vocations at Harvard College reports that 90 per cent. of the questionnaires sent to students regarding their plans for life work were returned, over 100 conferences were held by undergraduates with interested alumni in various occupations as well as more than 96 with prospective employers, and there was a total attendance of 1,050 at the four talks on prominent vocations by leaders in the various fields of work held at the Harvard Union in March last year. In the Widener Library books on vocational subjects were reserved for the use of students seeking to make a decision on their life work. Six articles were published in the undergraduate daily paper on various professions, as follows: Publishing, by F. L. Allen, of Harper and Brothers; Teaching in secondary schools, by W. L. W. Field, headmaster of Milton Academy; Engineering, by Dean Hughes, of the Harvard Engineering School; Business, by Howard Coonley, president of the Walworth Manufacturing Company and of the Boston Chamber of Commerce; Journalism, by F. R. Martin, general manager of the Associated

Press, and Teaching in colleges, by R. P. Angier, dean of freshmen at Yale.

AT a recent meeting of the State Dental Council and Examining Board of Pennsylvania, a resolution was passed providing that the one year of approved college work included in the requirements for admission to a dental college in Pennsylvania in 1925 shall include at least 6 semester hours of English, 6 semester hours of chemistry, 6 semester hours of biology or zoology, and 12 semester hours of elective work.

THERE are at Yale 104 students, representing 38 different localities from the east coast to the west, who are receiving aid from Yale Alumni Associations this year. These scholarships are distributed as follows: 25 seniors, 30 juniors, 20 sophomores and 29 freshmen. The total amount made available for these scholarships by Yale graduates is $50,800. Most of the stipends amount to $500, but there are some of smaller amounts and a few as large as $600 and $700.

THE Attorney General of New Jersey has given the State Department of Public Instruction an official opinion to the effect that the provisions of Chapter 223, P. L. 1914, under which children between the ages of 10 and 16 years might engage in certain light employments when school was not in session under age and working certificates, are nullified by Chapter 204, P. L. 1918, which entirely prohibits children under the age of 14 years from engaging in any mercantile employment and further provides that children can be employed in a mercantile establishment between the ages of 14 and 16 only under an age and schooling certificate. There is still, of course, an exception in favor of children engaging in agricultural pursuits when school is not in session, and to these the requirements as to age and to possession of an age and schooling certificate do not apply.

ANNOUNCEMENT is made by Dr. Augustus O. Thomas, state commissioner of education of Maine and president of the World Federation of Education Associations, that more time is desired for decision by the judges on the $25,000 award offered by Raphael Herman of Washington, D. C., for the best plan calculated to produce world peace under the direction of the World Federation of Educational Associations. Several thousand plans were submitted to the committee and these were reduced to 300 and later sifted to 20. Six plans now remain from which number the decision will be made.

NINE cities have recently notified the Bureau of Education of the Interior Department that they have organized schools on the platoon or work-study-play plan. This makes 72 cities in all in which such schools are maintained. One out of every six cities with a population of 30,000 or more has schools conducted on this plan. Of the great cities of the country, Detroit has 80 platoon schools; Philadelphia has 43; Pittsburgh, 38; Dallas, 27; Birmingham, 23; St. Paul, 18; Newark and Akron, 17 each; Sacramento, 13; and Dayton, 8.

TEN thousand students are enrolled in romance language courses at Columbia University is reported by Professor John L. Gerig, executive officer of this department. French attracts the largest enrollment, with Spanish second and Italian third. The registration in Italian, however, is 100 per cent. greater than last year, the gain being recorded chiefly in university extension. All the graduate courses given in extension, particularly in the evening, show considerable increases, including such courses as old French and French mysticism. "The graduate courses in Italian have the largest registration in the history of the department," said Professor Gerig. "It is gratifying to note the interest manifested by graduate students in Old Irish and Old Welsh. Provision has been made for definite credit at Columbia for graduate and undergraduate courses given in the University of Porto Rico."

MARKING the first break from coeducational instruction in the higher institutions of Southern California, announcement is made that Occidental College at Eagle Rock, Calif., will in the near future be divided into two colleges, one for women and one for men. According to the Boston *Evening Transcript*, the present campus of 96 acres will be used for the new Occidental College for Women and a 1,000-acre tract of land near Santa Monica and within three miles

of the Pacific will be developed for the campus of Occidental College for Men. Decision to establish two separate colleges was reached, according to President Remsen D. Bird, because it was felt that the time had come when Southern California should have higher educational institutions devoted exclusively to the interests of men and women, respectively. All the other colleges and universities in the lower part of the state are coeducational. The plan to establish two separate colleges was made possible by the gift of the big tract of land near the ocean by Alphonso E. Bell, a graduate in the class of 1895 and a member of the board of trustees. A campaign is to be launched soon to raise $3,000,000 for building and endowment for the college for men. One hundred and fifty acres is to be included in the new Santa Monica campus, the remainder of the land to be sold by a syndicate of friends of the institution who will subdivide it and seek to develop about the college a community of men and women interested in and in sympathy with the college's ideals. The net proceeds of the sale of the property, which it is expected will be in excess of $1,000,000, will be used for the endowment of both institutions and the erection of buildings on the new campus.

THE former staff members of the California Bureau of Research, under the direction of Dr. J. Harold Williams, have completed a comprehensive report on the findings of the bureau for the eight years of its existence, including data on 1,250 delinquent boys, representing consecutive entrants to Whittier State School during that period. The report also includes a study of 341 delinquent girls at the California School for Girls, and another study of 467 boys at the Preston School of Industry. Special emphasis is placed on the results of psychological tests and the social case investigations. Several hundred homes and neighborhoods were especially studied. The bureau, which has been engaged since 1915 in the study of juvenile delinquency, was suddenly discontinued on June 30, 1923, in consequence of the "efficiency and economy" program of Governor Richardson. Its publications, including *The Journal of Delinquency*, were discontinued with the organization. The bureau was a department of Whittier State School, and maintained branch laboratories in other institutions.

IN an address before the National Council of Catholic Women at St. Louis recently, Archbishop Austin Dowling, of St. Paul, Minn., appealed to the gathering to bring about the defeat of the proposed education bill to be introduced in Congress, which would appropriate $100,000,000 for the furtherance of public schools. "It has all the vices of a political bill," Archbishop Dowling said. "I do not question the sincerity of the author of the bill, but the foot of it indicates that no educator had anything to do with the drafting of the measure." The patriotism of Catholics who are willing to "tax themselves twice" by sending their children to parochial schools was praised by Arthur F. Mullen, an attorney of Denver, in addressing the council on the relation of the Catholic schools to the Fourteenth Amendment. This amendment, he said, offered the best protection against enemies of the parochial school.

SPECIAL CORRESPONDENCE

THE LANGSTON PLAN

A CURRICULUM FOR NEGRO TEACHER-TRAINING SCHOOLS

MUCH attention has been directed recently to the unsatisfactory methods and practices prevalent in schools for Negro youth. The unfavorable comment thus elicited seems to justify exposition of at least one sincere attempt to approach the educational problems of the race with statesmanlike vision.

The Colored Agricultural and Normal University of Oklahoma, located at Langston, is the institution where this attempt has been made and rewarded with a certain amount of success. Situated in one of the younger states of the union, this school possesses two advantages over many of its sister institutions; first, it receives a more liberal allowance for support, and secondly, is administered by a forward-looking president. As a matter of fact, the small sums usually appropriated to institutions of this character make it almost impossible to maintain an educational institution of standard caliber. This factor, then, is an important one in explaining the success of the Langston Plan.

The primary purpose of the school is to furnish teachers for the Oklahoma schools; and, as a consequence, emphasis is placed upon courses

leading to certification, especially after completion of the two-year normal course. The courses for normal students are arranged in two main sequences; the first devoted to educational subjects, with the following divisions: Psychology, measurements, principles of education, methods and Negro education. The other sequence, which runs concurrently with the professional educational subjects, comprises the regular academic fields of English, history, sociology, mathematics, etc.

It is, however, in the aim and subject-matter of this program, rather than in the formal organization, that the most original steps toward the creation of a socially effective curriculum have been made. It is obvious that two faults characterize the general plan of curricula for Negro schools. These faults lie in neglecting the fact that the problems of the Negro teacher and public person are greatly variant from the problems of the same individuals of other races, with the result that a wholly artificial emphasis is often placed upon impracticable and misplaced curricular material. In addition, these programs all too often fail to recognize the fact that the students of Negro schools are in many cases woefully ill prepared for work of an exacting nature, by reason of inferior graded and high schools.

To remedy these faults, it is essential that the period of training be one for social adjustment. The Langston Plan meets this demand by emphasizing the peculiar type of social organization, the problems peculiar to the Negro, whether rural or urban, with which these teachers must grapple after completing their preliminary training. For example, a great gap exists between the *theory* and the *practice* of Negro normal schools and the actual graded school situation. This hiatus is due to a failure to focus upon problems which form the proper heritage of the Negro. The text-book method characterizes, almost exclusively, the technique of these normal schools; and these text-books call attention to a type of social organization which will never concern the student, save in a historical sense, after leaving the normal school.

Among examples which might be proffered as to the distinctive contributions taken by Langston to obviate these deficiencies might be mentioned the question of intelligence testing. Usually the Negro student-teacher is taught that the average I. Q. of her pupils should approximate 100; that for a class average to fall below this point is indicative of incapacity to master the work of certain grades, etc. Instead of giving these student-teachers norms for children of a social strata far superior to that in which the majority of Negro children live, as in the case just noted, the department of tests and measurements at Langston seeks to establish norms applicable to Negro children. Likewise the methodological work; the subject-matter of these courses is so modified as to correlate with actual differences in pupil-reactions. The courses in the history of education offered contain a liberal admixture of problems of Negro education, as well as reference to factors usually discussed in the historical approach. The ideals of Booker T. Washington are studied and discussed, and compared with the opposed school of Dubois and others. Sociology, English and even science are given a social application and modified in the same manner.

The Langston Plan has been actively in operation for only two or three years; but in that time it has gained the approval of many observers. At a recent meeting of Negro state schools, held at Hampton Institute, Virginia, the plan was adopted as the program for these land-grant colleges. Elsewhere in the south it is being studied, and the enthusiasm with which it has inspired all those who have regarded it intimately is a promise of a coming renaissance in the ranks of Negro education.

H. M. BOND
COLORED AGRICULTURAL AND NORMAL
UNIVERSITY OF OKLAHOMA

DISCUSSION

SPANISH IN HIGH SCHOOLS

WHILE the value of Spanish for college students is being discussed, as a result of Professor Seashore's communication, it seems pertinent to question the validity of its popularity in secondary school education. The United States Bureau of Education reports[1] that three years ago it was being studied by nearly a quarter million pupils in 2,412 public high schools. There is good reason to believe that the numbers are even greater than these.

[1] Statistics of Public High Schools, 1921–22. Bulletin, 1924, no. 7.

When, during the World War, German became discredited as a subject for study in our secondary schools, Spanish in many, perhaps most, instances took its place. This was due partly to the obvious fact that it is "another foreign language," partly to the traditional assumption that at least one foreign language is necessary in secondary education, and partly to very insistent propaganda in its favor. There was little consideration of the absolute value of Spanish or of its relative value when compared with Japanese, Chinese, Russian, Italian, Portuguese or Norwegian. Let us briefly examine the claims that have from time to time been made for it.

1. *Spanish is a practical language.* This to some extent it doubtless is in the border states, where we find the largest percentage of pupils electing it. It is seldom noted, however, that the Spanish speaking Mexicans along the border are overwhelmingly peons, with a patois and with customs very different from those of the cultured Castilian. The number of Spanish speaking people in the United States is very small, as may be seen from a study of census returns.

Of course for those likely to travel in Spanish speaking countries the language will be useful. But that number from the United States has in the past been small, and there is no reason to think that it will be materially increased in the future, near or remote. Certainly there is no likelihood of 250,000 of our citizens traveling in Spain, Mexico, Cuba or South America.

2. *Spanish is valuable in promoting trade with South America.* Again the claim must be admitted for a small number, but it has been so overemphasized as to become absurd. In many high schools Spanish is for this reason a required subject in the commercial curriculum. Boston was one of the first cities in which this argument was promoted. Not only did considerable numbers of pupils for this end elect Spanish, but the Chamber of Commerce aided in popularizing it by sending selected boys on trips to South America. Very soon the market for high school graduates who had studied Spanish became glutted, and it was found that business men instead of demanding them would send a man already trained in the business to learn not only the language where it was spoken but also the manners of the people.

One may search long before finding in the offices of firms exporting to and importing from Spanish speaking countries a single stenographer or typist who has studied Spanish in our high schools. The largest of such firms in New York, a firm employing some two hundred stenographers, is reported to have only six per cent. who can "take" and transcribe Spanish. They find it more practical to write in English and have their letters translated at their destination. As a matter of fact, anyone who knows the first principles of doing business with Latin peoples recognizes that school Spanish, even when meticulously correct, is ineffective (to say the least) unless it is written with an intimate knowledge of the manners of the people. This can be acquired in no American school.

Our curriculum practice has ignored the fact that in very, very rare instances has Spanish acquired in high schools been used to promote trade relations with foreign countries. Even if it were, the question should be raised as to its relative value when compared with other languages. Certainly we have an important trade with the Orient and other countries whose languages are seldom if ever taught. Mention is seldom made of the fact that in Brazil Portuguese is spoken, and in the Argentine a local patois is quite as common as Spanish. If we were sincere and intelligent in our desire to promote foreign trade, we should go at the curriculum from a different point of view.

3. *Spanish reveals a worthy culture.* In the past it did, but in the present, relatively speaking, it does not. Several years ago teachers of Spanish issued a brochure defending the study of that language. In it were presented numerous names of those most prominent in the sciences and the arts, but only a very few were familiar to those who know the special fields. Their contribution to modern life is small and there is no promise that it will at any time soon become greater. Professor Seashore is quite justified in saying or implying that the research worker in any subject finds little in Spanish to forward his studies.

For the high school pupil the claim is narrowed chiefly to literature. Cervantes, Calderon, Echegeray and Ibanez occur to everyone; but who else? There are excellent English translations of the works of all these men, but

none of them are popular even with our good students—if we except the current popularity of Ibanez, whom few competent judges would rank above a dozen living American novelists. There are other interesting writers in Spanish, but competent students of comparative literature do not by permanent standards rank them high. As a matter of fact, the mores of the Spaniard and of the Anglo-Saxon are so different that many stories, novels and plays that are interesting and morally innocuous to the former, the latter would not permit his children to read. There is in English to-day such an abundance of literature of good to high quality that the secondary school student can find plenty to occupy and edify himself without entering the difficult, dubious and relatively sterile field of Spanish letters.

Professor Cano rather indignantly denies[2] that Spanish is an easy language. Owing to its many idioms it is a difficult language to *master;* but there can be little doubt that as presented in our high schools it is easier than either French or German. Pupils almost unanimously think it so. The spelling is simple, the vocabulary relatively small, and the essentials of grammar for easy reading and classroom conversation not difficult. But its ease of acquirement is neither a justification nor the reverse.

When the secondary school curriculum is examined in the light of pupil needs, giving the term a liberal interpretation, the conclusion is inevitable that foreign languages already bulk too large. There is an unjustified and unjustifiable popular identification of the study of foreign language, modern or ancient, with education. The result is that far too many pupils get a smattering of another language at a tremendous cost of their own time and of public money, and then leave the subject with no precipitate of permanent worth. A smaller number should be encouraged and permitted to pursue a foreign language, and they should be so taught as to secure a mastery that pays permanent dividends in effective use. In the inevitable curriculum reorganization, which at the present time shows signs of healthy progress, Spanish will be the first of the foreign languages to suffer from loss of election. Its proponents will do well to improve the quality of the subject-matter that they offer, to enrich it with the Kultur and Realien of the Latin peoples, and to insure in practical affairs or in culture the use of what is mastered.

TEACHERS COLLEGE, THOMAS H. BRIGGS
COLUMBIA UNIVERSITY

[2] SCHOOL AND SOCIETY, 20: 663.

REPORTS

ADMINISTRATION OF THE UNIVERSITY OF ARIZONA[1]

SPECIFIC requests for an inquiry into the situation at the University of Arizona were made to the chairman of Committee A last fall by Professor DeRosette Thomas, professor of home economics, Professor A. E. Vinson, professor of agricultural chemistry, and Charles A. Turrell, formerly professor of Spanish. Professors Thomas and Vinson were notified in October, 1923, that their appointments would terminate at the close of the last academic year. Professor Turrell resigned September 23, his resignation to become effective October 1, 1923. The association was asked by these three persons to make an inquiry not solely into their own individual cases, but into the general situation at the university during the two years of President Marvin's administration.

In the early spring of this year a committee was appointed consisting of Professor G. P. Costigan, of the University of California, Professor H. R. Fairclough, of Stanford, Professor R. C. Tolman, of the California Institute of Technology, Professor W. Westergaard, of Pomona, and Professor G. P. Adams, of the University of California, the last being chairman. Professor Adams spent a week at the University of Arizona in May, 1924.

The committee has thought it best to present a detailed report upon the two cases of Professors Thomas and Vinson, because these two professors were dismissed, to deal with a single important question of administrative policy in the case of Professor Turrell, and to present its findings as to the general situation at the university which has developed in the last two years only in so far as it concerns the wisdom and success of the type of academic policy which the present administration has been pursuing.

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1. The committee believes that Professor Vinson had come to occupy a position of prestige in the university and in the state, and that his

[1] From a report to the American Association of University Professors.

shortcomings in carrying through his experiment station projects were not sufficient to offset the long and honorable period of service which he had rendered to the institution and the state.

2. The committee can not find evidence of disloyalty or lack of cooperation on Professor Vinson's part, which would warrant his dismissal. What is cited as "hostile propaganda against the administration and the university" on Professor Vinson's part seems to the committee to have been the attempt of Professor Vinson to defend himself against attack, after a period of seventeen years of loyal and devoted service.

3. As to the belief that the opposition of copper interests may have been a factor leading to his dismissal, the committee can express no opinion as to the actual part which the testimony of Professor Vinson may have played in arousing the hostility of important and influential interests and consequently leading to Professor Vinson's dismissal. The committee believes, however, that a university administration should be slow to dismiss any professor whose dismissal would be even remotely attributable to outside, pernicious influence, and should prefer even one whom it may regard as a mediocre professor rather than to give the appearance of molesting academic independence and freedom. Accordingly, the committee regards the dismissal of Professor Vinson as highly regrettable.

4. Professor Vinson's dismissal has not carried conviction to the vast majority of his colleagues in the College of Agriculture and the university. His services were sufficiently long, various and honorable to have made him an asset to the university. To have lost his services at the cost of so much bitterness of feeling as has resulted, appears to the committee to have been, at the very least, a most serious blunder.

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The committee recognizes that no infringement of academic tenure or freedom is involved in the administrative shifting of the headship of a department from one person to another, nor even in the appointment of a new head from the outside, as was done in the appointment of Miss Crigler. But such a step as this is likely to be fraught with very serious consequences for the morale and the internal cooperation of the members of the department. In this case, it has ended unfortunately in that the university has lost the services of an efficient and faithful member of the faculty who had undoubtedly achieved a high degree of success in building up the department and in winning the confidence of the university and the community. A most unfortunate and difficult situation was created by a step—the appointment of Miss Crigler—which was within the president's rights and discretion. It appears to the committee probable that the same difficulties would have resulted even if there had been no disagreement between Miss Thomas and President Marvin as to whether she was definitely informed of the president's intentions prior to her departure from Tucson. Granted that Miss Thomas was not in every respect successful as an administrator and that the department needed reorganization, the committee is bound to raise the question whether the reorganization has not been purchased at too high a cost to the morale of the institution. The importance of this question lies in its bearing upon those more impalpable and personal elements in the situation, which distinguishes academic organization and administration from purely business administration where the sole considerations are efficiency and profits. The success of a university administration should be measured, not solely by the rapidity and decisiveness with which internal rearrangements of departments and personnel are effected in the interests of efficiency, but by the tactful weighing of the consequences of contemplated changes upon all personal and departmental relations which are likely to be affected. Could the ends which the president had in mind have been gained without the disruption of the department and the resulting serious damage to the university, if Miss Crigler had been appointed professor, leaving the question of the headship of the department in abeyance for a while? The committee, of course, does not know. But the committee can not avoid the conviction that the administration must shoulder a considerable measure of responsibility for the loss to the university of what should have remained an asset, *i.e.*, the services of Miss Thomas who had for ten years devoted herself with enthusiasm to the institution and the community.

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The only matter in the case of Professor Tur-

rell which the committee wishes to comment upon relates to the propriety and wisdom of effecting changes in the organization of a department, while the head of the department is absent, and without consultation with or advice from him. Here again, the committee recognizes that the decision as to the headship of a department falls entirely within the competence of the president. But the committee is strongly of the opinion that to make such changes during his first year and in the absence of the professor who had been head of the department for eighteen years, and without any previous consultation with him, shows a regrettable and unjustifiable lack of tact and consideration for the self-respect of the head of the department. Professor Turrell was not dismissed; he submitted his resignation, which followed shortly upon his return to the university after an absence during which his department had been reorganized without his knowledge or consent. After his eighteen years of service as head of the department, such treatment of him seems to the committee inexcusable.

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The committee wishes to comment upon certain aspects of the policy and method pursued by President Marvin in the reorganization of the university faculty. The committee is obviously not called upon to review the entire administration of President Marvin with respect to all his policies and accomplishments. In any such survey it would have to be recognized that, during President Marvin's administration, the salary scale has been materially raised, the policy of granting sabbatical leave without forfeiture of normal salary increases has become established, provision has been made for professors temporarily incapacitated through illness, and the faculty has been strengthened through the addition of scholars of high standing. Moreover, the reorganization of faculty personnel (dismissals and resignations) during President Marvin's administration has been no greater than during previous years, and has been markedly less than in some earlier years.

Nevertheless, the committee is compelled to recognize the existence of a widespread and deep-seated unrest among the members of the faculty. There is grave disquiet, uncertainty and apprehension, sufficient seriously to impair the morale of the faculty and its single-minded devotion to teaching and research. Rumors that this, that or the other member of the faculty is slated for dismissal have been and still are rife. The committee is constrained to believe that a large measure of responsibility for this state of mind, so disastrous to the effective pursuit of academic aims, must be placed upon the president who not infrequently, through his conversations and utterances, has left the definite impression that various members of the faculty ought to be gotten rid of.

* * * * *

Let it be assumed that President Marvin faced a situation of great difficulty at the outset of his administration, that the University of Arizona had reached a stage in its history when academic standards needed to be raised, and that this could only be done through a weeding out of "dead timber." In such a situation there appear to be but two alternatives. Either the institution may be treated as would a business organization under similar circumstances and a reorganization effected by a new administration swiftly and without much reference to the personal and impalpable elements in the situation. Such a plan will at best result in the making of the necessary changes but is not likely to foster academic independence or to safeguard those aspects of university life which, in the long run, are essential for the sound upbuilding of a university. The other alternative would require a longer period of time, slower and less drastic changes, a scrupulous adherence to those principles of academic administration which would leave no doubt in the best minds of the institution that whatever changes are made are made solely in the interests of the institution, and the exercise of consummate tact. The committee is of the opinion that these latter requirements have been conspicuously lacking in very much of President Marvin's reorganization of his faculty, and that their lack has powerfully contributed to the prevailing disquiet and disaffection.

NUTRITION OF PRESCHOOL CHILDREN

NUTRITION work for preschool children in nine cities and three rural communities has been studied by the Children's Bureau of the

United States Department of Labor. Boston, Chicago, Cleveland, Detroit, Kansas City, Mo., New York, Philadelphia, St. Louis and Utica were the cities included in the investigation; Macon County, Alabama, Mississippi County, Arkansas, Wayne County, Michigan, were the three rural sections included. Nutrition work is interpreted as "any systematic and concrete instruction given under medical supervision to a child or to its parents that has as its purpose the correction of all the conditions that have interfered with the normal growth and development of the child." The following is a summary of the results of the investigation which was conducted primarily for the purpose of discovering and comparing the methods used by the different cities and counties in nutrition work for young children between babyhood and school age:

(1) A health center that undertakes the care of preschool children has three primary responsibilities: Educational, to educate the parents in the community as to the health needs of their preschool children; supervisory, to provide general health supervision for as large a number of preschool children as possible; corrective, to provide instruction in clinics and in home visits that will help to overcome poor health and living habits, and to give parents advice and assistance in securing the correction of defects that need medical care.

(2) The wide variation in the frequency and regularity of the attendance of mothers of preschool children in different centers indicates the need for a closer study of the factors that influence non-attendance.

(3) Food instruction is the type of corrective work most generally provided for preschool children, although the correction of postural defects and of wrong mental attitudes and bad habits is receiving an increasing amount of emphasis in some health centers.

(4) The excellent results secured by centers that have undertaken to give intensive care during a definite period to children needing corrective work indicate the desirability of greater use of this method.

(5) The use of a specialized worker for nutrition cases seems desirable. When there is only one nutrition worker on the staff of an organization the influence of her work will be more far-reaching if she cares for only a few special nutrition cases and devotes most of her time to a general educational program.

(6) The nutrition worker is primarily a teacher, and her success will be in proportion to her ability to interest the women with whom she works and to stimulate the formation of good food and health habits. Special food training is an essential requirement for such a worker, as she must be able to analyze and give advice as to the family dietary.

(7) There is much difference of opinion among nutrition workers as to the relative value of the home or a clinic as the place in which nutrition work should be done. There is need of a demonstration as to the comparative cost and effectiveness of using the home or the center as the place for each type of activity undertaken by a nutrition worker.

(8) A formal class method of conducting nutrition work was seldom used for preschool children. Advice was usually given to the mothers individually, though group instruction was used in a few centers. Group instruction of some kind should be made a definite part of a nutrition program. Demonstrations of food preparation and selection given in the center for groups of mothers and preschool children are of the greatest value in stimulating the interest of the mothers and in initiating a liking for new foods.

(9) Carefully taken habit and food histories and a record of the variations in the child's weight are the facts on which a nutrition worker bases her advice and the encouragement that she gives to a mother. It is important that all these facts about a child should be secured and recorded at sufficiently close intervals to give an accurate picture of his condition and to show his progress.

(10) In the rural districts visited nutrition teaching was centered in the schools. This school work was used as a means of creating an interest in the needs of the preschool children as well as the school children. Health teaching in the schools is an important factor in a health program for rural communities. It should serve not only to encourage the formation of good health habits among the school children but also to create and maintain interest in a broader county or state plan which would provide medical supervision for both school and preschool children in rural districts.

EDUCATIONAL RESEARCH AND STATISTICS

CHRONOLOGICAL AGE AS A FACTOR IN READING ACHIEVEMENT

NUMEROUS investigations throw some light on the problem of effect of chronological age within a grade upon reading achievement. So

far as the writer is aware these investigations give no conclusive answer to the question of minimal chronological age below which reading instruction is inadvisable; nor do we have any data on it. Accordingly, our discussion is limited to the effect of chronological age in the case of children six years of age or older.

In the St. Louis survey[1] as the result of testing 4,463 elementary school pupils, it was found that the average Gray oral reading scores "for the age groups in the first grade decrease as one passes from the seven-year-old group to the eight- and nine-year-old groups. A careful study of the more largely represented age groups in each grade shows the same decrease in achievement among the older pupils in a grade. This means that in oral reading bright pupils surge ahead while the slower pupils in the class require more detailed help before an equal amount of progress has been attained."

It was also found that the rate of silent reading within a grade decreased with increasing age in the second and third grades, but that this tendency was less evident in the fourth and fifth grades, almost disappearing in the three upper elementary grades. In quality of silent reading (measured by the Gray silent reading test) it was found "that after the second grade progress in ability to comprehend the meaning of the printed page is not influenced largely by age groups. Pupils of different ages are assigned to the same class because they possess about the same amount of achievement in school work. Since progress in school work depends so largely upon ability to do effective silent reading, it is in harmony with natural expectations that the average quality scores should be more similar for the various age groups than is true in the case of oral reading."[2]

Theisen[3] reports results from the Haggerty silent reading tests with 210 first- and 190 second-grade pupils, selected at random. The correlations between chronological age and reading achievement were all zero except one of .13 between chronological age and test I of Sigma I in the second grade. Theisen concludes:[4] "If age were one of the strong factors in producing results in primary reading, we should expect to find a decided positive correlation between it and reading performance. Such a condition would mean, in general, that the older the child in a given grade the better his reading. This, however, is not the case."

These investigations do not necessarily settle the question, because other factors may be unequally present to such an extent as to obscure the truth. One might conclude from them that the younger children of a grade are the brighter and accordingly do somewhat better in reading.

To avoid this difficulty an attack can be made on the problem by employing the partial correlation technique and eliminating or rendering constant certain measured factors. This the writer has done in the data which follow.

A pupil's mental age was determined by taking the average of his mental ages (in months) on from two to six group intelligence tests. The testing program was as follows:

44 Fourth A pupils. Reading tests: Thorndike-McCall and Monroe.
Group intelligence tests: Illinois, National A1, B1, Haggerty Delta 2, Dearborn C and D.

42 Fifth A pupils. Reading tests: Two forms of Thorndike-McCall and Courtis.
Group int. tests: National A1 and Otis Advanced Examination A.

55 Sixth A pupils. Reading tests: Two forms of Burgess, Monroe and Courtis.
Group int. tests: Haggerty Delta 2, and Otis Advanced Examination A.

108 Seventh B pupils. (The entering class of a junior high school.)
Reading tests: Thorndike-McCall, and Holley sentence vocabulary.
Group int. tests: Illinois, National A1, Terman A, Haggerty Delta 2, Dearborn C, D.

The Pearson product-moment coefficients of correlations between (1) reading achievement and chronological age and (2) reading achievement and mental age were calculated and are shown in Table I:

[1] Vol. II, p. 137f; p. 168f.

[2] *Ibid.*, Vol. II, p. 170.

[3] Twentieth Yearbook, Pt. II, p. 6.

[4] *Ibid.*, p. 6.

TABLE I

Pearson r's between reading achievement and chronological age and mental age.

	CA	MA
Fourth A. n = 44.		
Monroe rate	.160	.462
" comprehension	.162	.533
Thorndike-McCall	—.051	.652
Fifth A. n = 42.		
Courtis rate	.050	.626
" comprehension (Rts.)	.077	.774
Thorndike-McCall	—.071	.673
Sixth A. n = 55.		
Burgess	—.340	.698
Monroe rate	—.226	.479
" comprehension	—.184	.565
Courtis rate	—.286	.454
" comprehension (Rts.)	—.228	.736
Seventh B. n = 108.		
Thorndike-McCall	—.173	.624
Holley vocabulary	—.307	.708

Next the partial coefficients of correlation were found so that we might know the relation between chronological age and reading achievement, differences in mental age being "partialled out" or eliminated. Then the partials were taken to show the relation between mental age and reading achievement after making allowance for differences in chronological age. These coefficients are shown in Table II:

From Table II it appears that if mental age is held constant or "partialled out" reading achievement and chronological age have a relationship varying from $r_{ra.m}$[5] = —.152 to $r_{ra.m}$ = .184, the thirteen partials averaging —.013. On the other hand, if chronological age is held constant, reading achievement and mental age have a positive relationship varying from $r_{rma.}$ = .391 to $r_{rma.}$ = .773, the average of the thirteen partials being .595.

If then we consider pupils now in school studying reading (*i.e.*, C A = 6 years or more) our data lend support to the view that chronological age within a grade is in itself of little significance for reading achievement, but that mental age is of considerable importance. A more extensive investigation is needed to show the proportionate influence of mental age, or

[5] Subscripts have following meanings: r means reading achievement; a means chronological age; m means mental age.

TABLE II

Partial coefficients of correlation between reading scores and mental age and chronological age.

	Factor Held Constant or "Partialled Out."	
	CA	MA
Fourth A. n = 44.		
Monroe rate and CA		.174
" comprehension and CA		.184
Thorndike-McCall and CA		—.079
Monroe rate and MA	.466	
" comprehension and MA	.538	
Thorndike-McCall and MA	.653	
Fifth A. n = 42.		
Courtis rate and CA		.015
" comprehension (Rts.) and CA		.047
Thorndike-McCall and CA		—.152
Courtis rate and MA	.625	
" comprehension (Rts.) and MA	.773	
Thorndike-McCall and MA	.680	
Sixth A. n = 55.		
Burgess and CA		—.123
Monroe rate and CA		—.060
" comprehension and CA		.033
Courtis rate and CA		—.143
" comprehension (Rts.) and CA		.070
Burgess and MA	.616	
Monroe rate and MA	.437	
" comprehension and MA	.544	
Courtis rate and MA	.391	
" comprehension (Rts.) and MA	.722	
Seventh B. n = 108.		
Thorndike-McCall and CA		.012
Holley vocabulary and CA		—.149
Thorndike-McCall and MA	.609	
Holley vocabulary and MA	.679	

chronological age, upon reading achievement when such factors as (1) interest and effort of pupils, (2) methods of teaching, (3) quality of instruction, (4) time devoted to reading, (5) amount of reading materials, etc., are measured or estimated and adequately allowed for or held constant. Such an investigation would determine the relative importance of the known measurable factors involved in reading achievement.

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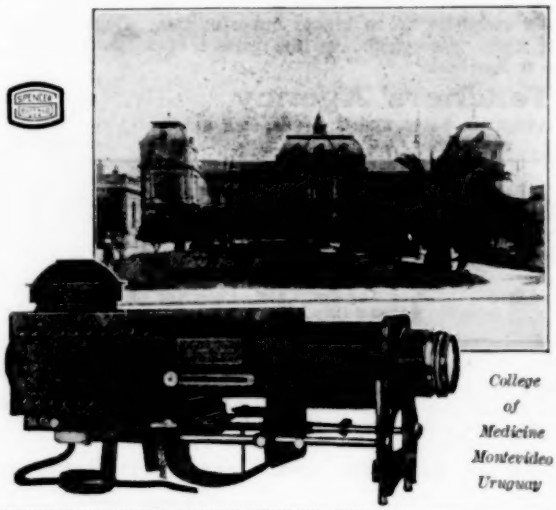

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